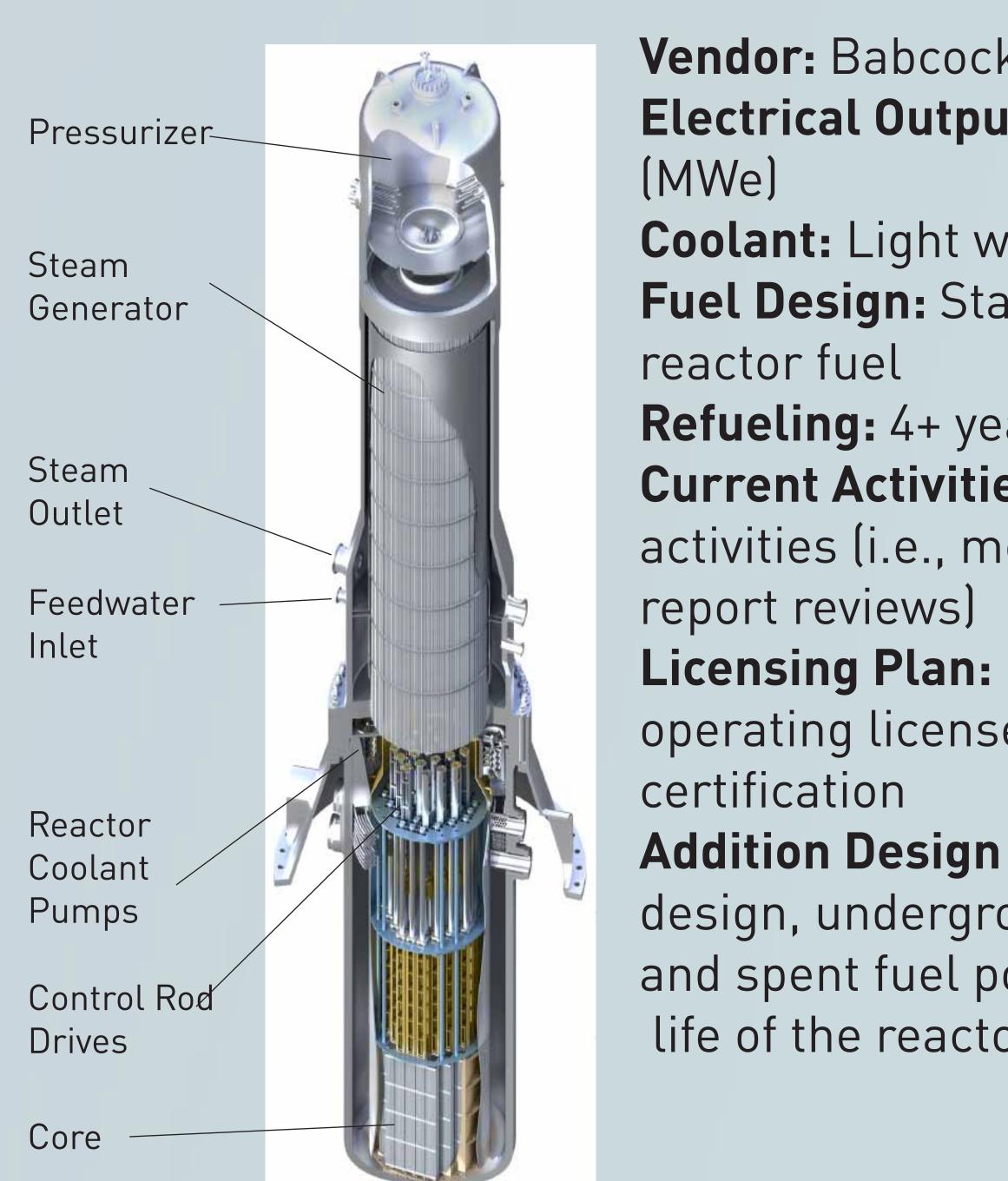


Review of Advanced Reactors

mPower



Vendor: Babcock & Wilcox Company Electrical Output: 125 megawatts electric

Coolant: Light water

Fuel Design: Standard pressurized-water

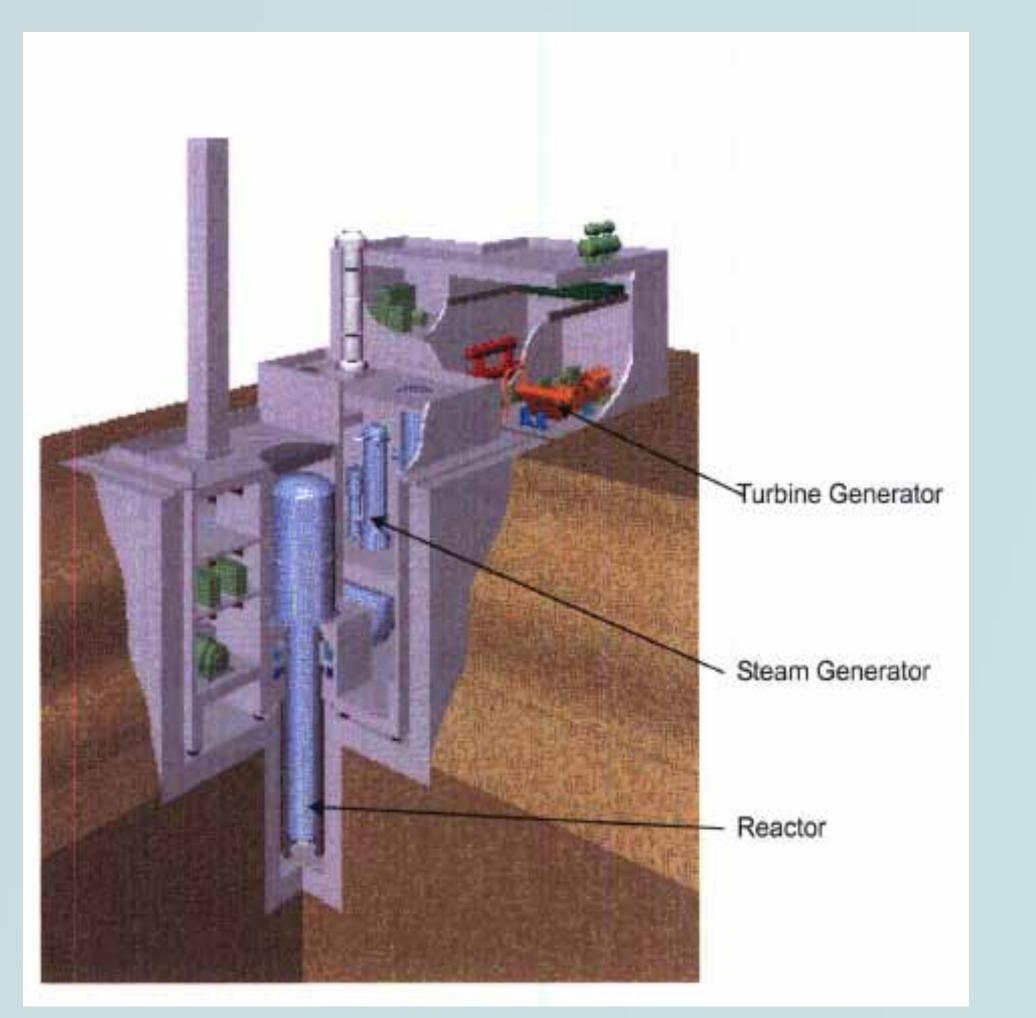
Refueling: 4+ years

Current Activities: Preapplication activities (i.e., meetings, topical

Licensing Plan: Construction permit/ operating license, and design

Addition Design Details: Modular design, underground containment, and spent fuel pool capacity for the life of the reactor

4S (Super-Safe, Small and Simple)



Vendor: Toshiba

Reactor Power: 30 megawatts thermal (MWt)

Electrical Output: 10 MWe Coolant: Liquid metal (Sodium) Outlet Temperature: 550 °C

Fuel Design: Hexagonal fuel assemblies

U-10% Zr alloy

Refueling: 30 years Current Activities: Limited preapplication activities

(i.e., occasional meetings) Licensing Plan: Design approval

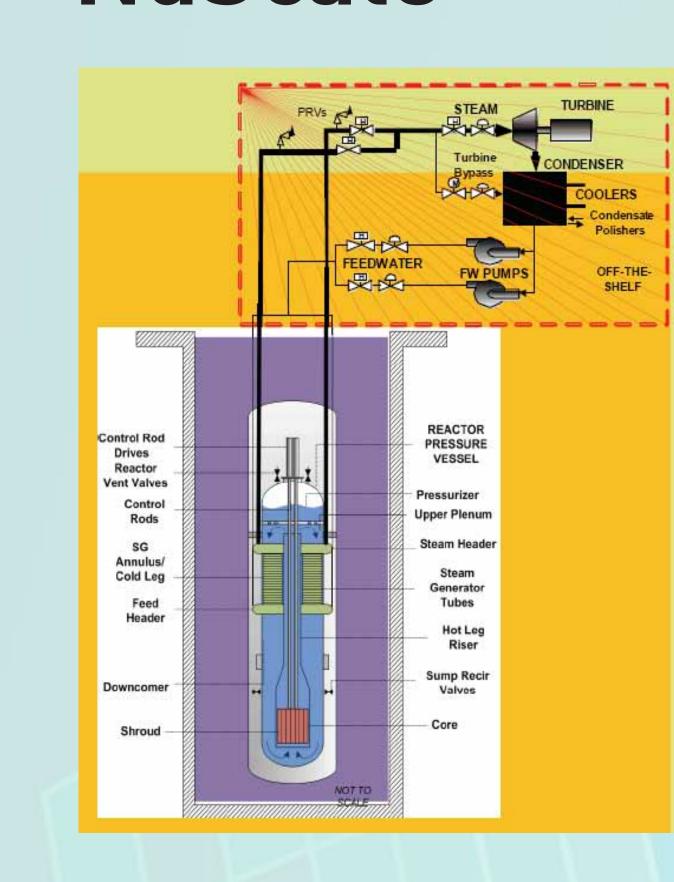
Additional Design Details: Pool-type fast neutron

electromagnetic pumps, internal structures, core and

reactor that contains passive safety features. The reactor vessel is located below grade and contains the intermediate heat exchanger,

shielding, and containment system

NuScale



Vendor: NuScale Power, Inc. Reactor Power: 160 MWt Electrical Output: 45 MWe Coolant: Light water Outlet Temperature: 575 °F Fuel Design: 6-foot-long, 17x17 assemblies

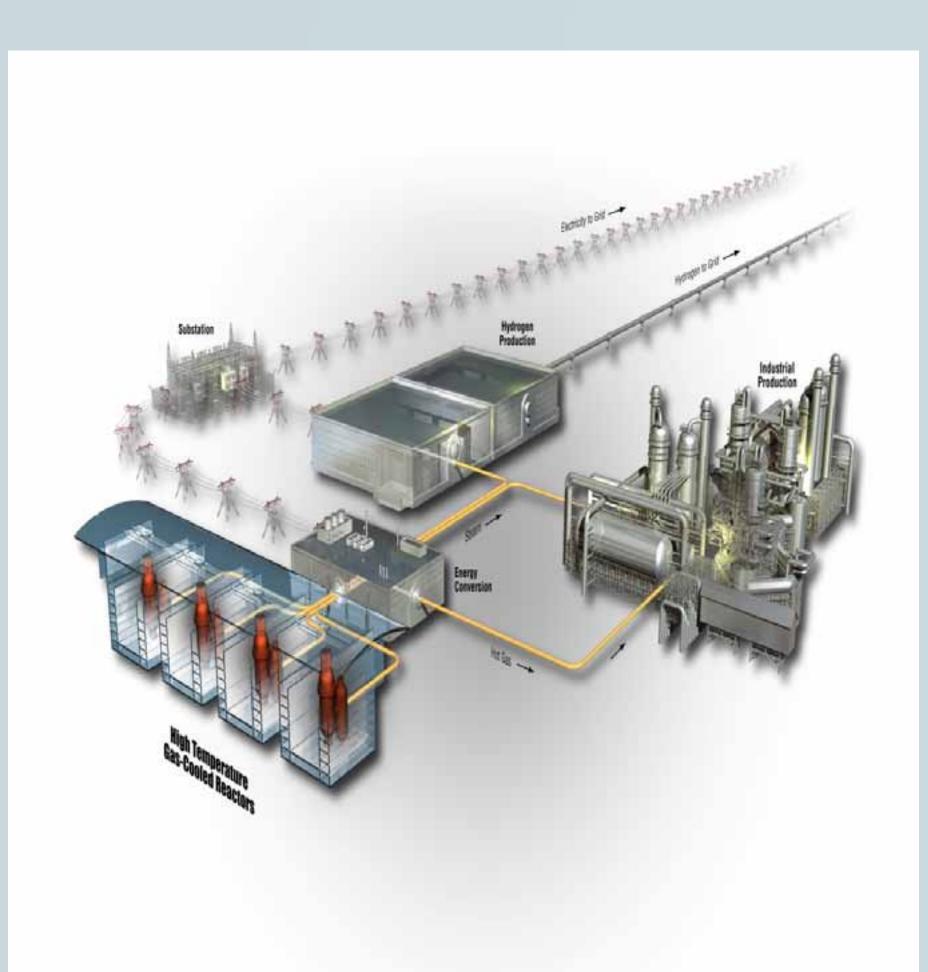
Refueling: 24 months Current Activities: Preapplication activities (i.e., meetings,

topical report reviews) Licensing Plan: Design certification

Additional Design Details:

Modular design, with reactor vessel and containment module located below grade and submerged in a large pool of water common to all modules

Next Generation Nuclear Plant (NGNP)



Sponsor: U.S. Department of Energy (DOE) Vendor: DOE is currently selecting which reactor design will be used for the NGNP

Reactor Power: ~250 MWt

Electrical Output: To be determined

Coolant: Gas-cooled

Outlet Temperature: ~750 °C

Fuel Design: Prismatic or pebble bed

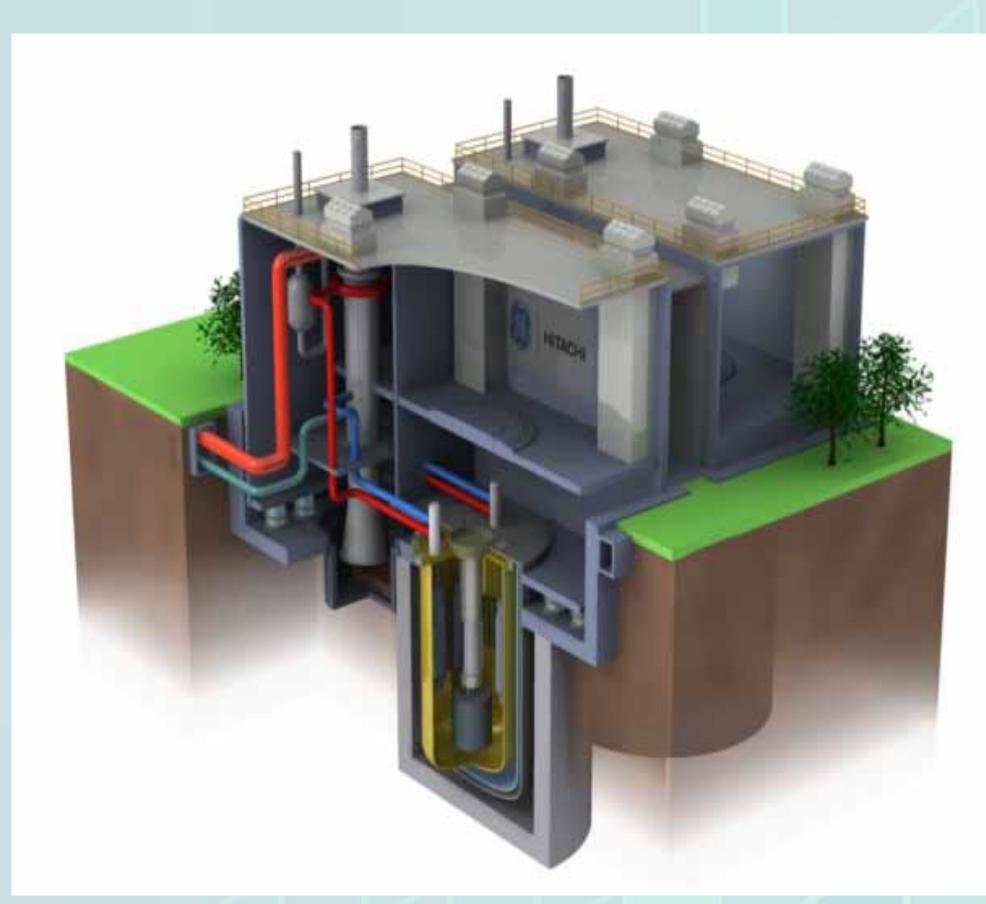
Refueling: To be determined

Current Activities: Preapplication activities

(i.e., meetings, white paper reviews)

Licensing Plan: Combined license (COL) prototype

PRISM (Power Reactor Innovative Small Module)



Vendor: General Electric-Hitachi Reactor Power: 800 MWt

Electrical Output: 300 MWe Outlet Conditions: 500 °C

Coolant: Liquid metal (Sodium) Fuel Design: Metallic

Refueling: 1-2 years

Current Activities: Limited Preapplication activities (i.e., occasional meetings)

Licensing Plan: COL prototype, manufacturing license or both

Additional Design Details: Small modular pool-type reactor with modules below ground

level containing the complete primary system. Each module is connected to its own intermediate heat transport system and steam generator system